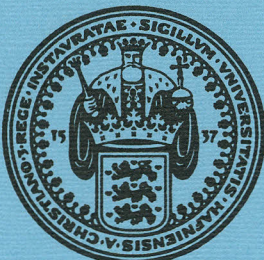


**Screening European Mentalities  
A Synthesis beyond Reception Literature**

**Bernhard Bierschenk**

**2017**

**No. 132**



**Copenhagen University  
Denmark**



**Lund University  
Sweden**

**KOGNITIONSVETENSKAPLIG  
FORSKNING**

**Cognitive Science Research**



**Screening European Mentalities  
A Synthesis beyond Reception Literature**

**Bernhard Bierschenk**

**2017**

**No. 132**

**Cognitive Science Research**  
Lund University  
University of Copenhagen

***Editorial board***

*Bernhard Bierschenk* (editor), Lund University  
*Inger Bierschenk* (co-editor), University of Copenhagen  
*Ole Elstrup Rasmussen*, University of Copenhagen  
*Helge Helmersson* (adm. editor), Lund University  
*Jørgen Aage Jensen*, Danish University of Education

**Cognitive Science Research**

Copenhagen Competence  
Research Center  
University of Copenhagen  
Njalsgade 88  
DK-2300 Copenhagen S  
Denmark

**Adm. editor**

Helge Helmersson  
Dep. of Business Adm.  
Lund University  
P.O. Box 7080  
S-220 07 Lund  
Sweden

## Screening European Mentalities A Synthesis beyond Reception Literature

Bernhard Bierschenk<sup>1</sup>

**Abstract** Since the reception of Tacitus in Europe, *Germania* was seen as a useful text for the interpretation of political events. Six modern translations into the (1) Swedish, (2) Danish, (3) English, (4) German, (5) French and (6) Italian languages have been made the foundation for the establishment of structures that are, with respect to the original Latin text, distinct and differently contextualized. Hence, the translators need to attune their writings in agreement with a predetermined (internal) order, which means that the working of the Agent [A] and Objective [O] components of the [AaO] system is independent of the empirical context. As a result, the proof does not depend on parameter fitting but must be established through the processing itself. Since evolutionary changes appear in the composites, i.e., with each other integrated strings of graphemes, this kind of integration generates layered composites as the units of the textual evolution. With the applied mirror-strategy, it becomes possible to carry out rigorous examinations on the roots of (A) and (O). The AaO-formalism allows the coupling of individual string movements on the micro-level with the trends in the global text dynamics. Mentality is produced from the inside out and described as a global trend.

### *A Synthesis beyond Reception Literature*

In a sense, accounting for the conception of Europe by the Roman Empire required the communication of its existence to be based on narratives. In ancient times, narration was perceived as a suitable device for knowledge transfer and meant to contribute with the establishment of information about certain tribes, living in particular geographical regions. Moreover, in Roman times, understanding Europe and Europeans was based on rumours and ambiguously perceived boundaries (Rahman, 2006). Furthermore, during the 16<sup>th</sup> and 17<sup>th</sup> centuries, many intellectuals and politicians shared the conviction that the *Germania* of Tacitus held the key to civilization and understanding oneself as European citizen.

Great emphasis was placed on the work of Tacitus and it mattered how it was received by culturally important characters and policymakers. As Martínez (2010) noted some translated Tacitus others promoted the translation of his works. Thus, passing *Germania* from one generation to the next attracted many and played its part in the cultural ambition to resolve the ambiguity of the European concept and to foster an atmosphere of encouragement of the people to become reflective over their own origin.

In order to allow many people to become acquainted with *Germania*, translations into vernacular languages were conceived as peculiar rewritings of the original Latin text. As the book author, every translator, who was able to produce a copy of the work in his own native language and to find a publisher, made the *Germania* known with himself as the copywrite owner. The deviations of the original from its translation meant to contribute with culturally meaningful explanations. In this connection, the translation was typically extended with additional words and comments.

For overcoming the impediment of *Tacitism* a strategy has been applied which allows for the study of the intentional properties of the Agent-component of the AaO paradigm. Thus, a method has been designed which makes it possible to measure personal angles on a topic

<sup>1</sup> Contact: Bernhard Bierschenk, Department of Psychology, Lund University, Box 213, SE-221 00 Lund, Sweden; information: <https://archive.org/details/studiesinconsciousness>

and also to represent the topic geometrically in the form of language space formations. In that way, it is made evident that graphemes as well as their rhythmic and clock-like assembling must be taken into account. Hence, as a result of established topological trajectories, various mental structures have been shown to emerge in complex energy landscapes. An evolutionary search for novelties in the established landscapes has brought their roots to the fore. Through balanced energy investments on one hand and the specific characteristics of emergent conceptual relations on the other has made it possible to capture their dynamic cooperation.

Complex energy landscapes appear to provide the tools for a contrasting study of the original Latin text of Tacitus with its modern translations. Four belong to the German language family, namely Swedish (Bierschenk, 2015a), Danish (B. Bierschenk, 2015b), English (B. Bierschenk & I. Bierschenk, 2016a) and German (B. Bierschenk & I. Bierschenk, 2016b) meanwhile two are belonging to the Roman family, namely French (B. Bierschenk & I. Bierschenk, 2016c) and Italian (B. Bierschenk & I. Bierschenk, 2016d).

In what way the AaO-formula is helpful in the experimental foundation of *screening* European mentalities is in the first place a question of being able to manifest the basics. Hence, the significance of the information, related to a specific category of concepts, may be picked up directly. However, the identity of a concept depends on the perceived nature of the events involved and what remains invariant over change. Once the invariants have been established, the structural relations of a concept become visible. Since wholeness signifies text validity, rotational processing requires no other reference systems than represented by the reception of Tacitus' work in the vernacular languages of Europe. This validates the use of balanced energy investments as shearing and straining functions and to determine the specific proportion of a rotational outcome as theoretical foundation for the naming of the relations.

Perspective Text Analysis (PTA) has been applied with the purpose to demonstrate the inter-lingual character of the Vertex version of the method. Thereby it is shown that language borders can be overcome and that the strategy carries the analysis beyond syntactic-semantic text descriptions. At the nominal, it implies that the underlying bio-physically working machinery is establishing the correct entanglement of the (A) and (O) components and consequently permissible channelling operations concerning the A's and O's in a given textual context. Furthermore, in overcoming language borders one must rely on the possibility to trace observation patterns through the reflection of these components so that they can contribute to the formation of bonds. This however, requires that textual movement patterns can be detected and perspectivated. The primary goal therefore is to discover the coordinate systems which develop on the basis of functional [AaO] units. In conclusion, the AaO-mechanisms for processing provide the intrinsic language co-ordinates space- and time-oriented.

Based on Greene's hypothesis (1999, p. 278), the [AaO] space has been split into [A] and [O] subspaces. At a first glance, it may seem as if this measure would destroy the strict dependency, which had been established and governed the coordinative cooperation of the A's and O's at the nominal level. However this is not the case! In treating the [AaO] unit as the most primitive synthesising mechanism, processing a string means that a string must revolve around the (a)-component. As Winfree (1980, p. 28) observed:

*The science comes in locating and making use of the discontinuities and the discovering which of many alternative mechanisms underlie its particular character.*

In processing strings, discontinuities are located and the cooperative interaction of twisting and twining sequences of strings is used in the determination of winding in their helical configuration. Through string rotation, processing of specific changes in angular articulation

become of crucial import in the determination of local string interactions. For example, a profound discovery of significant recursive convolutions comes with the recurrences of phase singularities at a higher level of abstraction. These are structural and constitutive which means that proprio-specific and extero-specific information is completely integrated within the boundaries of an AaO-unit. This is an important result of the boundaries and appears in the establishment of their helical properties (B. Bierschenk, 2001).

When applied to the kinematics of the resulting A-O-configurations, the theoretical significance of the spacetime concept has been demonstrated with reference to the mentioned mirror strategy. Since the separation of the A-O-pairs has led to a step where the A-space can be separated from the O-space, it provides for a very radical test of the proposed validity of the (AaO) axiom. This is a very important step through which the effect of multi-layered entanglements can be made manifest. For that reason, development and growth must be equated with rotational differences which are the result of differences in energy originally invested into perfect [AaO] units and energy, fused into imperfect units. Even more important is that this kind of refraction through imperfect [AaO] units allows for the deformations to appear as differences at the thermodynamic level, which relate to various forms of rotational speed and acceleration.

By relating the theoretical framework of the [AaO] units, with the termini of the Objective (O) component as well as with the termini of the Agent (A) component it has been possible to show that (O) is contributing with clarifications while (A) is backing up the taken position. At the first (nominal) level of text processing, the space-splitting approach demonstrates that the open sphere of a text space is controlled by displacement functions which means that these functions are working in the direction of growing string-vectors. However, with respect to the viscous-elastic properties that determine the magnitude of shearing and straining, the functions control also rolling vectors which can be observed to emerge as waves in hyperbolic spaces.

This implies that angular articulation and attitude change provide the context for the manifestation of Potential Energy Surfaces (PES). In the mathematical sense, there is no requirement for a subjective choice of order parameters. Instead, their significance is addressing the fact that free parameters are *pointless in the string-approach* (Greene, 1999, p. 383). In this function, PES is gathering all relevant string composites. Since intermittent phase-transitions are resulting from changes in the stability of a gradient, phase-transitions lead to changes in the identified order parameters which are fundamental for forming the shapes of the developing spaces.

At the second level of processing it is demonstrated how the making and breaking of the links of the  $\alpha$ -strand of (A) and the  $\beta$ -strand of (O) are influencing the states of the textual system. A manifold of articulated displacement calculations have been defined at this level of text processing. Of particular import in the definition of the ( $\alpha$ ,  $\beta$ ) rotations is that the spinors, representing an original rotation, are changing sign even though the rotations bring a particular strand back into the condition where a rotational displacement was initiated. This means that a displacement may proceed either counter-clockwise or clock-wise. That displacements can go in either direction captures the reversible selectivity in pattern dynamics. This makes evident that articulation and changes in attitude have generated a phase relationship, which reflects intentional and spontaneous displacements at each cycle and constitutes the basis for the production of PES-spaces. Furthermore, continuously as well as discontinuously developing kinematic trajectories are generating the subspaces of Free Energy Surfaces (FES) which restrict the folding of super strings making up the ( $\alpha$ ,  $\beta$ ) strands. The underlying fundamental assumption concerning FES is the following: invariant structural relations are forming the basis in the manifestation of a naming path.

### *Searching for Novelities in Complex Landscapes*

The concept of a landscape implies that a new kind of conservation principle can be approached experimentally. Its common causal determination can be understood as the functional definition of fitness. To catch the fundamental implications for approaching a language space requires that strings of graphemes can produce valid textual resonance properties. In advancing the space hypothesis, it will be demonstrated that the theoretical significance of the space concept relates to the way in which resonance properties cause singularities to emerge. Moreover, the core of a space configuration is assumed to be structurally invariant. To the degree that a translation has the capacity to induce the same pattern dynamics, compared to the original, translation can be regarded as having produced a deeply ingrained structural commonalty. Further, it will be made evident that contextual differences may produce differences in the emergent singularities. The way in which the particular operations of translation are influencing the determination of singularities is dependent on how the subtle distinctions of this process are handled and implies that one must be able to account for the way in which language employs its own intrinsic system of coordinates. Their discovery provides an unbiased foundation for the evolution of super strings and singularities of different complexity.

Super strings are observable only with respect to conservative self-organising processes, which appear in the neighbourhood of their thermodynamic equilibrium states. At a distance from these states, phase transitions appear to be dependent on *super fluids and flow without dissipation* (Hurtley & Szurmi, 2004). Like flows of a river, verbal flows are characterised by eddies, vortices and cascades. Through individual variations it is possible to demonstrate the formation of unique *point attractors* and the manifestation of structural stability in the morphogenesis of *state attractors*. These are in a non-linear way dependent on the order parameters which control the states of a system and their changing history (B. Bierschenk, 2001, 1993/2013). In general, superfluid systems are those, which are open, which means that a change in the dynamics of super strings can be described with reference to the identity relations which are set-up as basis for the channelling of information flows (B. Bierschenk, 2005). In addition, holophoric attractors may be used with the purpose to make evident that structure requires the concepts of wholeness and evolution.

Since each and every textual system is building up its own unique development, its behavioural expression will be shown to emerge in its holophors. Besides the capacity to work towards the unification of states, they are converging on the global or final state attractions. In searching a particular holophor for novelty, its holophoric path description may be conceived of as an *evolutionary search tool* (Ebeling, Scharnhorst, Montañó, & Karmeshu, 1999, p. 449). Hence, for the discovery of intentional dynamics one must be able (1) to make the producer known through the production, and (2) to recover the underlying intention and orientation through attitudinal changes *step-wise* and according to Baeyer (1999) *without intervening dissociations and in perfect order*.

Without invalidating the kernel of the original Latin text, the study of integrated strings of graphemes is facilitated by imaging and describing the behaviour of translational super strings. Especially the impact of the Latin text processing (B. Bierschenk, 2012) on contextual restrictions will be made the starting point for challenging translator sensitivity. Since the structural constraints, influencing the translators, are variable with respect to their pick up from the original text, the major outcome should show that the features of the kernel can vary greatly with respect to the rotation in the core, mediated through the produced translations.

Responsive remoulding will allow the resulting state attractors to incorporate both intention and orientation. Since neither (A) nor (O) is fitted into one or the other empirical context, translational rewriting must be attuned to the predetermined (internal) order. Though,

when Greene's mirror-strategy is adopted, it becomes possible to carry out a rigorous examination. If the application of Greene's space-tearing hypothesis would have turned out to be a misconception of the ideas behind the (AaO) hypothesis, there would be *no reason in the world to expect anything but a random collection of digits* (Greene, 1999, p. 278). Therefore, the proof of the AaO validity is in the processing itself!

Applying the space-concept to the study of separated (A) and (O) spaces not only requires that the existence of a language space can be hypothesised, but also that its existence must be demonstrated empirically. An established space configuration is always characterized by regions, which, moreover, may show strong bottlenecks and thus suggest firmness in the achieved state attractions. As a result, all complexities, observed at the end of a textual transformation, can be circumscribed and communicated with the name associated with the final or global state attractor.

### ***The Final or Global State Attractors***

The formation of termini in complex landscapes is dependent on synthesis, i.e., the production of symmetry. As a result, symmetry is a consequence of non-commutative measurements and will be discussed in the context of translational invariance. At a certain given point in time, at least one isolated phase singularity may arise in a simultaneously evolving state space and constitute the basis for the formation of a terminus. When a terminus is defined as the local concentration of conserved information, the achieved translations make apparent that irreversible processes appear as stabilities, i.e., information invariants. Especially the impact of the translation function on already existing structural constraints will come into focus at the kinematic level. As a result, a relation must incorporate both the state and the dependency relation between termini.

Transiting through a state space is strictly controlled by the thermodynamic properties of its attractors. At the same time, the transformation process is integrating intention as well as orientation with the naming-function. Since this function exists only over time, it is also correcting itself. Repeated transformations and crossing of one sub-path with another is resulting in transformations which allow for the integration of the consequences of having found the structure of the naming-function. Thus, shifting experiences are provided during the transitions from one state to another. Integrated in the emerging configuration of names is the production growing responsiveness. Thus, the generation of a terminating state must become recognisable through the name which is assigned to the corresponding attractor.

From the ecological point of view, a path is communicating adaption and gives simultaneously expression to self-indication. With reference to the self-indicative properties of the (AaO) formula a produced morphogenetic development may be conceived of as an expression of ego-reception and extero-perception (Gibson, 1979, p. 116). The underlying assumption is that the sensitivity in the pick-up of the *affordances* (Gibson, 1966, 1979) is a fitness function, which constrains perceptual resemblances. In moulding this kind of self-sensitivity a high degree of softness may become observable and appear as interplay between increasing and decreasing shades in meaning. Since meaning is contextually specific, it is important to relate a text to its particular producer. The self-referential property of the [AaO] system is integrating textual context into its mechanisms and thereby generating a manifold of novel super-symmetries. Since they are the consequences of processing (Greene, 1999; Cho, 2000), they have, with respect to emerging information structures, important theoretical implications.

To reiterate, as a logical consequence of producing the solutions to the equations of text processing, an evolutionary search for novelties becomes determined by the structure of the surrounding textual context. But the maintenance of its non-equilibrium properties through symmetry-breaking operations in text production allows the system to reflect its own

internal dynamics together with the structure of the context. As a result, the thermodynamic description of text means an alternative description through its space-related properties.

### *The Consciousness of Tacitus*

The purpose with a study of *consciousness in historical time* through a proposition (B. Bierschenk, 2015), has been to show how a semantic-free reproduction works. Furthermore, the original quotation is free from any addition of other Latin words. Therefore, without disturbing modern language, the application of energy landscapes provides the ground for the emergence of novel attractors. Thus, evolving are landscape-specific properties which provide for a strictly unified presentation of order-relations of the kind shown in Table 1.

**Table 1**

*Propositional Goal-Statement of Tacitus*

| <i>Fusion</i>     | <i>Agent</i>    | <i>Balance</i>     | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i>     | <i>Terminus</i> |
|-------------------|-----------------|--------------------|-----------------|------------------|--------------------|-----------------|
| Path <sup>1</sup> | T <sub>A7</sub> | q <sub>≈</sub> +16 | Screening       | T <sub>O7</sub>  | q <sub>≈</sub> +22 | Screening       |

<sup>1</sup> Bierschenk, B. (2015).

The emerging singularities mark the presence of topologically invariant state attractors, marked with T<sub>An</sub> and T<sub>On</sub>. The number (n) of attractors in a particular language space is given by simply counting the number of attractors. Independent of the kind of Mesh-systems chosen counting gives an expression of the length of the respective path.

In employing the developed naming function, the transformative explanations of the most salient attractors are shown to result in *Screening*. By beginning with the surface-oriented prismatic variations in the Agent (A) component, it can be noted that the displayed attractor is carrying a (+) sign. Hence, a substantial impact due to growing surface-dependent complexities seems to appear as growing rockiness. This means that the naming in the A-component is conveying firmness in screening. It is also the essential property of the root of the Agent-component.

Concerning the rockiness, of the Objective-component, it becomes noticeable that the distinctions in this component have generated only slightly more measurable variations, which however have not resulted in a divergent root. Moreover, it is remarkable that both components are anchored in *Screening*. As it appears in the study of the proposition, this circumstance was originally non-communicative.

## **Receptive Translations**

One of the outstanding features of early receptive translations was attributed to their steering function upon matters of stylistic difficulties and metaphors. Translation immediately suggested a linguistically differentiated audience and awareness of boundary conditions. The specified new conditions departed from the circumstance that a translation must emanate from a particular individual and foster a critical understanding as well as a new perspective (B. Bierschenk, 1993). This meant that the interpretation of a Latin text could not be compared over national language borders. Only recently have translators considered the impact of national trends in linguistics and literary criticism as well as cultural exchanges. Modern approaches pay more attention to the expected effects of a translation. In this sense changes in syntax and vocabulary are indications of the participation of certain cultural configurations and the production of precise intellectual environments. Thus translations of ancient texts appear to partake in the formation of one's self-understanding. Building on the active



reception of a certain translation by a particular audience may imply the pick-up of intrinsic tendencies from the original Latin text. Building on the active reception by the member of a particular audience, *Tacitism* of the time, was always directed towards unraveling of the secret code for studying human behavior, however without admitting an interest in or acknowledgment of *Machiavellian thoughts*. Despite its psychological nature, a fully developed culture may be uncivilised, as Florentine humanists insisted concerning Germania (Aristodemo, 1996, p. 95).

This problem is intimately connected with the fact that the key to the mental foundation of one's native country and consequently one's familiar environment may remain undiscoverable and therefore ambiguous and by definition unknowable. Thus, Tacitism cannot be the key to an understanding of what kind of instructive effort is needed for passing on essential mental conditions. However, in contrast to Toswell's (2010) analysis, the composition of *Germania* and its translation may very well offer a suitable key to the establishment of a sense of longitude and certainty in screening and the perspectivation of European mentalities.

To various degrees, there is a development in the North-western Countries that requires a closer look on the fundamental mental conditions. In studying its changing nature, especially in Sweden, Denmark, England, Germany, France, and Italy causes and the effects of the identified differences shall be highlighted. In searching the naming path of a particular landscape for novelty in the named relations, the thermodynamic description may be conceived of as the needed evolutionary search tool.

The specified new condition takes its point of departure in the circumstance that a translation must emanate from a particular individual. Hence, the single individual constitutes the frame of reference and the embodiment of structure is expected to emerge through individual text production. The Swedish translation of 1960 was made by Önnersfors. The used Danish translation has originally been produced in 1974 by the Editors Bruun & Lund but was republished in 1978. The English translation was made by Hutton (1920/1958) and is considered to be standard and therefore is taken as basis for the presentation of the *Suiones* for English speaking readers. Concerning the original, both in its writing style and its spirit, this version seems to communicate a *genuine English sense*. However, at present it is unclear what this means. Maybe it represents the conception of the English scholars that it is an ambitious translation, which excludes all words which may have been alien to Tacitus' way of thinking. Still, special difficulties are connected to the translation and may have influenced it in unpredictable ways (Gilbert Ramsay, 1915, Preface to Tacitus). Since the information in the German translation is contextually specific, it is important to relate its textual cues to the particular translation of Fehrle and Huennerkopf (1882/1959), which has been the template for the Swedish translation. Thus, it is the single translator, who is producing the actual textual materials. However, the perspective and the structure of a complete text must be built up during text production and within the context of a continuous language space of unknown dimensionality. The translation of the French Tacitus edition was made by Perret (1949/1962) while Zambanini, Calzolari, & D'Alfonso, (2009) are the translators of the Italian version.

In its most fundamental sense, the state attractors, reported in Table 2, can be used for making the *essence* of the original perspectivation recognizable.

**Table 2**  
*Tacitus on the Suiones*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>2</sup> | T <sub>A31</sub> | q≈90           | Safeguard       | T <sub>O37</sub> | q≈76           | Mastery         |

<sup>2</sup> Bierschenk B. (Ed.) (2012).

As it appears, the roots of the components are anchored in a didactic process whose target is the narration of people and events. In ancient times, narrating was perceived as a suitable device for knowledge transfer and meant to contribute with the establishment of information about certain tribes in particular geographical regions and situations. Since screening was assigned the key role above in Table 1, the self-referential property of Tacitus comes to the fore in Table 2 and makes up the precondition for establishing two final state attractors concerning the description of the Suiones, which are carrying the inclusive names of *Safeguard* and *Mastery*. Tacitus appears to conceive the Suiones to approach life with a proactive attitude.

In approaching especially this early Germanic tribe, any reasonable comprehension must have been adjusted properly to contextual circumstances. Thereby, its morphogenesis can be extracted and represented space-related. With reference to spacing and timing, the *self-sensitivity* of Tacitus has produced a particular kind of moulding in both the Agent and the Objective component. The attractions in the landscapes are shown to carry state-dependent relations which are converging on overall (A-O) symmetry.

### **Sweden**

In the Swedish perspective, the present case means adapting or adjusting one's behaviour to the actual laws and regulations. Based on functionality, superiority in order, accuracy in industrial design as well as neatness and scrupulousness are thematically the properties that manifest the essentials of the Swedish translation. Compared to the outcome of the original Latin configuration, the Swedish translator deviates in his solution to the translation task. Instead of the originally produced concept of *Safeguard* as part of perceived supremacy, the emerging intentional property in the Swedish case appears in Table 3 as *Strength*.

**Table 3**  
*Dispositional Factors of the Swedish Translation*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>3</sup> | T <sub>A55</sub> | q≈182          | Strength        | T <sub>O55</sub> | q≈209          | Alertness       |

<sup>3</sup> Bierschenk, B. (2015a).

Adapting or adjusting one's behaviour to the actual laws and regulations requires *Strength*, manifesting itself in a set of dispositional factors. In the present case, this outlook means that individual behaviour has to be evaluated against the background of the global state attraction which means a unique combination of talents, knowledge and skills. It implies an impetus that the individual needs to use in carrying out everyday duties. As a motif, it involves a commitment to do one's best and implies a principled focus on power control. To the degree that an efficient reaction to an observed threat can be processed, the sensitivity to the perceived hazard can be approached with certain guarding measures which concern the condition of exercising self-determination.

Hence, growing complexity gets its manifestation in the magnitudes of the state attractors which, moreover, mark growing distinctness. The production of concept-relations is achieved through a process by which variety in their shaping becomes specified and by which somewhat differently convoluted state spaces are produced. What kind of convolution has been generated is shown to depend on the interplay between increasing and decreasing shadings. The degree of realized articulation corresponds operationally to conceptual depth.

In considering the special emphasis placed on conceptual information displayed by the Objective component, the hypothesis may be put forward that *Alertness* as the emerging concept is fundamental to the orientation of the translator. This means that this invariant holds the fundamental reflection in the text. Obviously, the terminus *Mastery* differs to a certain degree from the terminus *Alertness*. Logically, the latter is a precondition and necessary for proper self-sensitivity.

### **Denmark**

When compared to the original Latin configuration the energy manifested through the fusion differs to a high degree from the measured bi-componential disparities shown in Table 2. Differences in invested and remolded energies are resulting from differences in the produced asymmetries. Through apparent asymmetries, it is demonstrated that the requirements of internal adjustment to a given textual environment can also be observed through the complementarity in the naming. According to Table 4, *Capacity* as objective of *Alertness* is important.

**Table 4**

*Bi-componential Disparity in the Danish Translation*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>4</sup> | T <sub>A61</sub> | q≈168          | Alertness       | T <sub>O61</sub> | q≈209          | Capacity        |

<sup>4</sup> Bierschenk, B. (2015b).

In the Danish society, citizenship appears to be intimately related to two operating stress factors whose forces are influencing not only the developed system but they play also an important role in the making of *Danishness*. In contrast to the Swedish case *Alertness* appears at the root of the dimension of intention. In essence its agentive role points to vigilance and thus an ability to detect the changing nature of social responsibilities and consequently the necessity of behavioural changes.

In considering the special emphasis placed on conceptual information displayed by the Agent function, the hypothesis may be put forward that *Alertness* as the emerging concept of the final or global state attractor implies an ability to maintain attention over prolonged periods of time. Hence, the focus is on protective watching out for possible danger or inelastic manners. Therefore, this attractor state suggests that this condition is required whenever an event contains risks for beaching or being approached aggressively. Thus, when the final terminus is defined as the global concentration of conserved information, the achieved conservation makes apparent that irreversible inclination processes have appeared as stability, i.e., an information invariant that is all-inclusive at the global level.

As the oldest kingly household in Northern Europe (Toswell, 2010, p. 45), this absolute seat of power had an unlimited kingly authority which is matched by the specifically Danish capacity of attentiveness to dangerous developments. Furthermore, *Alertness* conceived as a particular mental preparedness drove the Danes to invade England, build the British Empire and steered Europe into the industrial age. Moreover, it may also be seen as a self-protective attitude concerning European approaches towards unification.

From a mental point of view, any judgement of prosperity and affluence of a society is accessible only to the degree that it can be reflected through a conceptual structure, which is reflecting the individual's angle of inclination. The degree of precision in the corresponding intention is assumed to co-vary with the validity of the provided translation. However, critical performance constraints are limiting the achievement of excellence in human conduct. Therefore, concepts concerning competition for economic and technological growth are

limiting the expression of *Alertness*. It follows that the general concern with *Danishness* as an expression of equality of opportunity in gaining prosperity is achieved only through a general growth in wealth or welfare.

Not to forget, the Danes become also the largest oversea traders in the world and developed a *Capacity* to attend to dangerous developments. There exists a certain complementarity in the naming of the roots of the Swedish Objective (O) and the Danish Agent (A) function. The same is true for the Swedish Agent (A) function and the Danish Objective (O) function. Thus, the evolving crossover in their courses has produced state attractions, which are working towards a noteworthy Danish-Swedish complementarity. This result implies that a particular Scandinavian manner can be studied as a meaningful concept.

Besides the capacity of the computation to contribute to unification through the translators' perspectivation, the solutions have converged on the same kind of global state attractors, however in reversed order and a slight shift from strength to capacity. Finally, evolving sameness in their courses has produced state attractions, which are working towards a noteworthy structural overall symmetry. This result may be conceived of as a particular Scandinavian mental preparedness concerning European approaches towards unification.

### **England**

How the English translator has been able to comprehend the narration that Tacitus has created and communicated through his writings on the Suiones is in focus next. The produced and shaped mentality through a translator is not only denoting the agentive but also the named structural relations of the objective. Thus, the accessed information must interact and all changes of structure over time must be regarded as measurable conceptual relations. As demonstrated thus far, emerging structural relations require novel ways of changing during the integration of basic patterns into properly convoluted morphological configurations. The major outcome of the English text processing is shown in Table 5.

**Table 5**

*The Focus in the English Translation*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>5</sup> | T <sub>A57</sub> | q≈189          | Adaptability    | T <sub>O67</sub> | q≈165          | Adventure       |

<sup>5</sup>Bierschenk, B., & Bierschenk, I. (2016a).

As a consequence of the processed growth paths, the final state attractors (T<sub>A57</sub>) and (T<sub>O67</sub>) are in line with the previous analyses. Changes in the operational involvement of the Agent (A) and Objective (O) functions have provided the ground for a comparison of the total amount of invested energy. It is easily confirmed that the path of the Latin text is the shortest, while the path of the English translation appears to have greater stretch. The difference in the length of the English path implies a higher degree of convolution. To be sure, this translation involves variations concerning the transformations as well as the conditions of rotation. Higher degrees of firmness can be referred to the magnitudes in the relational processing, reflecting a higher degree of explicitness.

In short, the energy investment in the English case departs significantly from the investment in the production of the original Latin text. When measured against the bi-componential disparities, the proportional investment, manifested through the fusion, differs only slightly. Differences in invested and remolded energies are apparently resulting from differences in the produced asymmetries. Besides the capacity of the computation to contribute to unification, a solution must converge on a global state attractor. The major outcome shows that the structure, mediated through the produced English translation,



indicates that the (A) component can be identified with the *Adaptability* motif while the thematic description of the (O) component is identifiable with the *Adventure* concept.

Through the asymmetries, it is demonstrated that the requirements of internal adjustment to a given task environment can also be observed through the balance in the naming relation, e.g. (Agentive: skilful handling of artefacts) and (Objective: adventure, i.e., explorative behaviour).

In the view of the English translator, the text on the Suiones offers the Anglo-Saxon Englishman a way of maintaining an unbroken timeline of a unique English conduct to the challenges of life, namely forcefulness. This appears to be a long-distant line to the roots of English heroism. As Toswell (2010, p. 27) noted, the appeal to Tacitus over millennia reflects a desire to connect the societal behaviour of Englishmen to the longstanding and deeply rooted tradition of undertaking and securing advantage. Still, the translation of Tacitus seems to offer an insight into modern thinking in the Anglo-Saxon culture and the explication of courageous behaviour. For comparative purposes, anchoring this behaviour in its Teutonic origins offers a convenient option for thinking about ‘past and present’ (Bauschatz, 1982). In treating natural language production as carrier of a continuation between past and present, the standards of the Teutonic heroic age appear to be applicable to the essentially Anglo-Saxon aspect of the human condition. Here the English character appears to be anchored in its eager to demonstrate its wish for independence and trading apart from making friends and European steps towards greater integration. Identification with the Teutonic origins of England meant nothing less than promoting the Empire and the impairment of the slightest idea of European expansion.

### Germany

In a historical perspective, the German case has been dominated by analyses with a particular “nationalistic” focus on Tacitus’ *Germania* (Mertens, 2004; Martínez, 2010, p. 4). The present study on the contrary has shown that the inherent quality of the text leads towards a very different route. A first step on this route is to examine disparities (pairwise divergences). Compared to the original Latin configuration, the Scandinavian results and the English translation as well the termini reproduced in Table 6, show the expression of another quality.

**Table 6**

*Pairwise Divergence of the Roots of the German Translation*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>6</sup> | T <sub>A57</sub> | q≈167          | Movability      | T <sub>O57</sub> | q≈155          | Suspicion       |

<sup>6</sup>Bierschenk, B., & Bierschenk, I. (2016b).

The taken route gives a hint on the complicated relationship of the idea behind the narrative and its causation of sensible qualities. The higher order property of thought and the rewriting experiences have become available through the translators text building behaviour. As more flexible bounds come to the fore, *Suspicion* points towards antecedent actions. There reigns an understandable difficulty in the relation between powerful men on one hand and a deeply engrained *Suspicion* concerning discretionary power on the other. Hence, conceived *Movability* needs to correlate with efficient ruling. Expected is the establishment of laws which can be enforced consistently and with as little derogation as possible.

The thematic appearance of *Suspicion* as the root of the (O) component completes the translators’ approach to the narrative and brings out *Movability* as the root of the (A) component. Thus, each and every translation is building up unique variations concerning

motifs and themes of the narrative. Its German translation is to a certain extent the result of a balanced writing style. Compared to the English translation, the shorter path means behaviourally an adjustment to different textual conditions. The prismatic variations in the surface of a textual segment imply approximately equal conditions in the enlargement of the elastic stiffness in the German text.

The autonomous treatment of this manner of writing is generating sophisticated differences. In turning to the differences between Agent and Objective, it becomes evident that the termini relate lawfully to aspects of uneasiness. Hence, the objective is directing attention towards an articulated mood. Thus, mood appears to be intimately related to two apparently operating shear and strain factors. These are manifesting stress forces which are influencing not only the developing system but they play also an important role in creating an atmosphere. *Suspicion* as objective for elasticity is essentially a reaction of import. Establishing the effects of reaction is causally related to one's ability to adjust to unpredictable events or rule application. Thus, adapting or adjusting one's behaviour to the actual atmosphere in a society requires malleable strategies of interaction rather than a set of specific traits manifesting itself in a certain character.

### France

At the end of the 16<sup>th</sup> century France was known for the aggressiveness of its people who behaved fiercely and frequently violent. At this time, Tacitus had been recovered and converted into an important figure for guidance (Toswell, 2010, p. 37). Moreover, since Montesquieu claimed Tacitus as the esprit of France, the changing nature of citizenship and the consequences of behavioural changes in the 18<sup>th</sup> and 19<sup>th</sup> centuries implied that the *Germania* of Tacitus was well received by the French public.

In essence, the *Germanic attitude* had its first rude impact on the Gaul through the government described by Tacitus and implemented by the Franks. However, this government did not survive for long. According to Board of Trustees of the Leland Stanford Junior University (1997, p. 144), despite the complete monopoly of absolute power in later times, the kings of France did not manage to free themselves from the specifically French character of inattention to dangerous developments. To counteract this tyranny, the French people hoped for a restraining effect due to an unlimited kingly authority (Roelker, 1996). At the end of the century, the French proclaimed its unique spirit, equal to the spirit of ancient Rome. Though, when French intellectuals focussed on a Roman origin for France, the Germanic affinity once more became dismissed (Toswell, 2010, p. 37). In the French society, public spirit appears to be intimately related to two operating stress factors. Table 7 shows the roots of the established structure.

**Table 7**

*Bi-componential Disparity in the Stress Forces of the French Translation*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i> | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i> | <i>Terminus</i> |
|-------------------|------------------|----------------|-----------------|------------------|----------------|-----------------|
| Path <sup>7</sup> | T <sub>A53</sub> | q≈196          | Changeability   | T <sub>O61</sub> | q≈205          | Vigilance       |

<sup>7</sup>Bierschenk, B., & Bierschenk, I. (2016c).

Apparently, perspectivation is influencing not only responsive behaviour but it plays also an important role in generating the French esprit. *Changeability* in a reaction is of import. The process of naming has been shown to provide a sound theoretical basis for the communication of stability and order in emerging mental profile. Hence, what the French translator exactly has been able to pick up will be established and made visible by the ability of the individual to adapt to the regime of the existent civil code.

*Vigilance* as the root of the Objective means that individual behaviour is evaluated on the basis of what actual laws and regulations require. Much of the stress variations in the French text concern the identification of these restrictions. The kind of convolution that has been produced is responsible for the interplay between observed stress and elastic stiffness. The significance of the French translation relates to differences in timing as well as to differences in spacing.

Compared to the German translation, the path is more elaborated which means behaviourally a longer path in order to adjust to actual textual conditions. The prismatic variations in the surface of a textual segment imply increased magnitudes and consequently enlargement in elastic stiffness. Apparently, citizenship appears to be intimately related to two operating shear and strain factors. These are manifested stress forces which are coming from the *French System* which plays an important role in creating an atmosphere.

In conclusion, an anxious style of conduct, grounded in continuing adjustments to common opinion is implied by the root of the (A) component. To cope with temperance requires that *Vigilance* is conceived as a flexible function of the acts to be performed in the *French System*. Compared to the previous translations, the intention marks an idiosyncratic sensitivity to environmental circumstances.

### *Italy*

If Italians from a mental point of view resemble the spirit of Rome it is so because Rome is culturally based on Italy and Italy has been and still is influenced by Rome. In this sense, Rome and Italy are virtually indivisible. For this reason, approaching Rome as the embodiment of civilisation represents a strategy, whose promise is to provide the ethical foundation for a scientific study of the Italian spirit. Granting the reign of the Roman spirit in Italy implies granting that *Rome* is more than the model of a city state. Instead, it means to be an Italian is more than simply being an inhabitant of Rome. Thus, Rome extends to its colonies, which make up the Empire. A distinct precondition for capturing the spirit of the Empire is that the translator is allowed to project his frame of reference onto the narrative and to position himself vis-à-vis a chain of standpoints and viewpoints. The result is shown in Table 8.

**Table 8**

*Bi-componential Expression of Italian Self-sensitivity*

| <i>Fusion</i>     | <i>Agent</i>     | <i>Balance</i>    | <i>Terminus</i> | <i>Objective</i> | <i>Balance</i>    | <i>Terminus</i> |
|-------------------|------------------|-------------------|-----------------|------------------|-------------------|-----------------|
| Path <sup>7</sup> | T <sub>A41</sub> | q <sub>≈168</sub> | Powerful        | T <sub>O45</sub> | q <sub>≈204</sub> | Willpower       |

<sup>7</sup>Bierschenk, B., & Bierschenk, I. (2016d).

Since intentions are not always known to the text producer nor made explicit by the translator of a text, properly attuned to situational circumstances has made it procedurally possible to define *Powerful* at the operational level and as the root of the Agent component. From a projection point of view, this root must be understood as particular expression of self-sensitivity.

Just like the Agent component gives expression to intention, so does the Objective component give expression to orientation. Both components make full use of the resonating capacity, reflected in *Willpower*. In rooting the dimension of Orientation in this global state attractor implies a short way to regime control and a long way to success. Therefore, *Willpower* purifies the virtues of the person who develops it and directs the life forces towards an optimistic attentiveness.

## Discussion

The accentuation of a translator's comprehension of *Germania* may be a step towards an understanding of how, and in exactly what way the shape of coherent relations is emerging within the conceptual reality of the Suiones of Tacitus. In approaching especially this early Germanic tribe, any reasonable comprehension must have been adjusted properly to contextual circumstances. However, the term *Germanic* in the classical sense was virtually never used during medieval times. Nevertheless, the term became adopted by the European humanists and allowed them to identify themselves with the geographical area covered by Tacitus' *Germania*. The continued reference to this terminus presents an important point in the intellectual history and present-day debates. How the present translators have particularized their cultural conceptions is believed to give expression to a long-range correlation, noticeably related to European modes of thinking.

A produced and shaped mentality is not only denoting intention but also the named structural relations of orientation. Thus, the accessed information must interact and all changes of structure over time must be regarded as a measurable mental relationship. As demonstrated thus far, emerging structural relations require novel ways of changing during the integration of basic string patterns into properly convoluted configurations. Evidently, by overcoming the barriers, conventionally raised by the studied vernacular languages, the results, when compared with the original Latin configuration, are pointing to distinct differences in perspectivation. Not only the naming is at variance but also the length of the paths and the magnitudes of state attractors differ with respect to the materialized states of attraction. Experimentally, Table 9 is demonstrating that the theoretical significance of the roots relates to the way in which a translation reflects a *mental setting* and thus is constraining the proper action potential.

**Table 9**

*The A- and O-roots of mental settings*

| <i>Language</i> | <i>Agent/Motif</i> | <i>Objective/Theme</i> | <i>Mental Setting</i> |
|-----------------|--------------------|------------------------|-----------------------|
| Swedish         | Strength           | Alertness              | Responsible           |
| Danish          | Alertness          | Capacity               | Advantage             |
| English         | Adaptability       | Adventure              | Furious               |
| German          | Movability         | Suspicion              | Insecurity            |
| French          | Changeability      | Vigilance              | Worry                 |
| Italian         | Powerful           | Willpower              | Optimistic            |

Besides translator differences, the capacity to work towards synthesis is shown to converge on the final state attractor. The structurally significant aspects of this information must be captured conceptually through the naming of the resulting kinematic states. Hence, what a *morphogenetic evolution* of a text is generating has been established and made visible through the naming of the final and all-inclusive state terminus.

Through the named novelties, the present discussion is meant to serve the explanation of uniqueness, resulting from a search through the landscapes of the Swedish, Danish, English, German, French, and Italian text productions. Evidence for the resulting variations in perspectivation is founded on the involved synthesising processes which must be conceived of as the outcome of biologically working coordination mechanisms. In conclusion, the significance of textual expressions of mentality resides not in the physical reality of a grapheme, but in its hypothetical fraction or share, related to textual flows. Finally, it is



worthwhile to remember that the Agent-action-Objective axiom stipulates that the *Agent* must get its description through the *Objective*, an axiom which finally has been validated empirically with the description of the abstracted themes and extracted motifs.

### References

- Baeyer, H. C., von (1999). Nota bene. From classical chemistry to super-strings, effective notation can shape the very development of a discipline. *The Sciences*, 39 (1), 12-14.
- Bauschatz, P. C. (1982). *The well and Tree: World and time in early Germanic culture*. Amherst, CA, University of Massachusetts Press.
- Bierschenk, B. (1993). The tacitness of Tacitus. A methodological approach to European thought. *Cognitive Science Research*, 46. Lund, Sweden: Lund University, Sweden.
- Bierschenk, B. (1993/2013). The fundamentals of Perspective Text Analysis. *Cognitive Science Research*, 45. (Substantially revised edition) Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B. (2001). Geometric foundation and quantification of the flow in a verbal expression. *Cognitive Science Research*, 81. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B. (2005). Differentiated limits for knowability. *Cognitive Science Research*, 97. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B. (2015). The core of Tacitus. *Cognitive Science Research*, 118. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B. (Ed.). (2012). Consciousness in Historical Time: Tacitus on the Suiones. *Cognitive Science Research*, 103. Copenhagen University, Denmark & Lund University, Sweden.
- Board of Trustees of the Leland Stanford Junior University (1997). *A classical republican in eighteenth century France: History*, p 144.
- Bierschenk, B., & Bierschenk, I. (2015a). Swedish receptiveness: The Suiones of Tacitus. *Cognitive Science Research*, 121. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B., & Bierschenk, I. (2015b). Danishness in the translation of the Suiones. *Cognitive Science Research*, 122. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B., & Bierschenk, I. (2016a). Mirroring English values in the translation of the Suiones. *Cognitive Science Research*, 124. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B., & Bierschenk, I. (2016b). Disclosing the German perspectivation on the Suiones. *Cognitive Science Research*, 126. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B., & Bierschenk, I. (2016c). Searching for novelties in the French translation of the Suiones. *Cognitive Science Research*, 128. Copenhagen University, Denmark & Lund University, Sweden.
- Bierschenk, B., & Bierschenk, I. (2016d). The impact of the Italian perspectivation on the Translation of the Suiones. *Cognitive Science Research*, 129. Copenhagen University, Denmark & Lund University, Sweden.
- Cho, A. (2000). Physicists Unveil Schrödinger's SQUID. *Science*, 287(5462), 2395.
- Ebeling, W., Scharnhorst, A., Montaña, M. A. J., & Karmeshu (1999). Evolution- und Innovationsdynamik als Suchproceß in komplexen adaptiven Landschaften. In K. Mainzer (Ed.), *Komplexe Systeme und Nicht-lineare Dynamik in Natur und*

- Gesellschaft. Komplexitätsforschung in Deutschland auf dem Weg ins nächste Jahrhundert* (pp. 446-473). Heidelberg: Springer-Verlag.
- Gibson, J. J. (1966). *The senses considered as perceptual systems*. Boston, MA: Houghton Mifflin.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston, MA: Houghton Mifflin.
- Gibson, J. J. (1982). The use of proprioception and detection of propriospecific information. In E. Reed, & R. Jones (Eds.), *Reasons for realism* (pp. 164-170). Hillsdale, NJ: Erlbaum.
- Greene, B. (1999). *The elegant universe. Superstrings, hidden dimensions, and the quest for the ultimate theory*. New York: W. W. Norton & Company.
- Hurtley, S., & Szuromi, P. (2004). This week in Science: A Superfluid Solid, *Science*, 305(5692), 1869.
- Martínez, B. S. (2010). *Translating Tacitus: the reception of Tacitus's works in the vernacular languages of Europe, 16<sup>th</sup> – 17<sup>th</sup> centuries*. Pisa: Plus-Pisa University Press.
- Mertens, D. (2004). *Die Instrumentalisierung der „Germania“ durch die deutschen Humanisten*. Berlin: Germanisch-Deutsch-RGA-E Band 34, Seiten 37-101.
- Rahman, A. (2006, August). Tacitus' Use of Rumour: a Means of Realism or Distortion? Posted in Academic Matters, Roman Papers.
- Roelker, N. L. (1996). *One king, one face: The parliament of Paris and the religious reformations of the sixteenth century*. Berkeley: University of California Press.
- Toswell, M. J. Quid Tacitus ...? The Germania and the study of Anglo-Saxon England. *Florilegium*, 2010, 27, 27-62.
- Winfree, A. T. (1980). *The geometry of biological time*. Berlin: Springer Verlag.